Three nations, not one: indigenous and other Australian poverty

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Summary

Benjamin Disraeli originally coined the phrase 'Two Nations' in 1845 to characterise the chasm between rich and poor in Victorian England. While the differential in access to resources has been reduced this century by the development of the welfare state, there is ongoing concern about the level of inequality in Australia. This paper attempts to develop, and sustain, the metaphor that there are three Nations in Australia: the rich, the poor non-indigenous Australians and indigenous Australians. That is, indigenous Australians are different from other poor and rich Australians in the nature and extent of destitution experienced in much of their community.

The paper is written in six sections. First, a discussion of several case studies and personal accounts in order to illustrate the indigenous experience of poverty. Second, an introduction of several conceptual and empirical issues for measuring the multi-faceted nature of indigenous poverty. Third, a description of the data and method used to analyse indigenous poverty. Fourth, a presentation of data which illustrates the multi-dimensional nature of indigenous poverty. The penultimate section canvasses strategies for tackling indigenous poverty while the final section provides some concluding remarks.

Indigenous experiences of poverty—some case studies

Research into poverty frequently appears rather distant from the reality of poverty. Case studies, from the Royal Commission into Aboriginal Deaths in Custody and the 'Stolen Generations' Inquiry, illustrate the day-to-day grind of indigenous poverty in modern Australia and the need for a multi-dimensional approach to indigenous poverty.

Conceptual issues in measuring indigenous poverty

The conceptual problems for measuring indigenous poverty include: the role of non-market work, family size and composition, relative prices and the geographic distribution the population.

The command over resources is undeniably a major factor determining whether a person is poor. However, one cannot live on bread alone and people need access to adequate health care, housing and justice. The Scandinavian levels-of-living measures of poverty use several indicators that capture the standard of living. The disadvantage of the Scandinavian approach is that it over-emphasises the autonomy of these indicators of poverty. While it is important to recognise the differences in facets of poverty, it would be a mistake to ignore the behavioural inter-relationships between spheres of living. For example, chronic health problems may have long-term implications for income earning potential.

The depth of disadvantage in income, housing, health, arrests and land among indigenous Australians

One of the major findings of this paper is that indigenous poverty is not sensitive to changes in measurement methodology. That is, indigenous people are about two to three times more likely to be impoverished than the non-indigenous population irrespective of the equivalence scale used. While the same methodology must be applied across time if trends in poverty are being examined, the facts of indigenous poverty are so stark that the use of different methods will not materially change the findings at any point in time. Esoteric debates about the efficacy of using the Henderson poverty line do not alter the substantial and consistent differences between indigenous and non-indigenous populations. Notwithstanding the robustness of the results, future research into indigenous poverty must continue to ensure that differences in household sizes are properly accounted for.

The multi-faceted nature of indigenous poverty is illustrated by describing several welfare indicators, including housing, health and security. Indigenous households ranked by (equivalent) income and the average outcomes for the relevant indicators are measured for five equally sized groups of households. Of all facets of indigenous poverty, health stands out as a major concern. Long-term health problems are evident in one-third of indigenous households in both low and high-income groups.

Since poor outcomes in non-monetary indicators are endemic among indigenous households it is inappropriate to focus solely on income poverty. For example, overcrowded housing is an issue for relatively advantaged indigenous families. Similarly, the high level of arrest and victimisation of indigenous people in both high- and low-income households means that income based measures do not tell the whole story of indigenous poverty.

Not surprisingly, high-income groups are more likely to be employed, have better and more educational qualifications and are more likely to live in capital cities. What is interesting is the level of concentration of these characteristics among the well off. There also appears to be an important feedback between the number of dependents relative to the number of adults and ability to participate in the labour market.

The results for indigenous poverty need to be contextualised with an analysis of non-monetary poverty in the non-indigenous population. Obtaining roughly analogous arrest data for non-indigenous people requires the combination of the overall number charged in local New South Wales courts for 1994 with 1991 Census postcode data on household income and composition. High income indigenous households are much more likely to be arrested than their non-indigenous counterparts in both relative and absolute terms. Living in relatively affluent households is obviously not an effective means for indigenous Australians to avert negative experiences with the justice system.

The 1992 National Health Strategy establishes a strong correlation between socioeconomic status, income and health outcomes for non-indigenous Australians. In contrast, high income indigenous families are only 1.2 percentage points less likely to experience long-term health problems than low-income indigenous families.

The metaphor that Australia contains three 'Nations', the rich, the poor and indigenous Australians is easily justified. Indigenous living standards are qualitatively and quantitatively different to other poor and rich Australians. Poor health and significant interactions with the criminal justice system are common experiences for even the relatively advantaged indigenous households. Health and justice issues probably require the concerted attention of policy makers if there is to be any hope that indigenous welfare will catch up with that of the rest of the Australian community. More attention needs to be paid to the depth of indigenous poverty in the other spheres of life.

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Preamble

The yearning for a sense of unity is deeply ingrained in much of humanity. This appeal to and for unity gained a popular expression in the support for the One Nation Party at the 1998 Queensland election. While the political fortunes of that party appear to be on the wane, one legacy of the explosion of interest in them will probably be a new emphasis on treating indigenous policy as if it is the same as non-indigenous policy.[1] For example, there is now an inordinate level of scrutiny in any program that has an indigenous-specific component (for example, the indigenous education program ABSTUDY, and indigenous community housing programs). In the bureaucratic jargon of our times, there is a new impetus for mainstreaming programs to minimise the possibility of 'downward envy' against indigenous Australians. Unfortunately, mainstreaming services may have an adverse impact on indigenous outcomes if special needs or circumstances are important.

The phrase 'Two Nations' was originally coined in *Sybil*, Benjamin Disraeli's novel on the economic and social problems of early Victorian Britain: 'I was told that the Privileged and the People formed Two Nations' (Disraeli 1875).

Even Disraeli, who had a diverse political career ranging from radical Tory to Conservative, recognised the importance of the welfare divide between rich and poor (Covick 1997). While the differential in access to resources has been reduced this century by the development of the welfare state, there are ongoing concerns about the level of inequality in Australia (Saunders 1994).

This paper attempts to develop, and sustain, the metaphor that there are three Nations in Australia, not one: the rich, the poor non-indigenous Australians and indigenous Australians. That is, indigenous Australians are different from both poor and rich Australians in the nature and extent of destitution experienced in much of their community. Mainstreaming the provision of programs is inappropriate if the causes of indigenous poverty are fundamentally different to those of other poverty.

Introduction

Indigenous Australians are the most disadvantaged and poorest sector of Australian society. Given these circumstances, the lack of information on what is a significant and chronic problem is surprising. Henderson (1975) provided one of the first insights into the high levels of indigenous poverty, especially in Australian urban areas. While Altman and Hunter's (1998) survey of the literature showed that indigenous people continue to be amongst the poorest in Australia, the fragmentary and incomplete nature of existing studies leaves policy makers without direction in attempting to deal with entrenched indigenous poverty.

Poverty, like economic status, is a value-laden concept that reflects mainstream society's priorities (Altman and Hunter 1997). In assessing the extent of indigenous poverty, the diversity of indigenous circumstances, and the dominance of alternative value systems, must be recognised. This is not merely an epistemological issue. In the last 20 years, under the broad policy ambit of self-determination, many indigenous people have chosen to move from townships to

small outstation communities distant from mainstream labour markets and commercial opportunities. These choices limit options to alleviate poverty as measured by standard social indicators. Similarly, many mainstream measures of wellbeing, such as home ownership and low household population densities are either not options for indigenous Australians (owing to residential location on communally-owned Aboriginal land) or are low cultural priorities. Any discussion of changes in indigenous poverty must recognise emerging indigenous priorities, as increasingly articulated by indigenous people themselves.

The circumstances facing many indigenous people are so different from those of other Australians that conventional income-based measures may misrepresent the nature and extent of income poverty amongst them. Not only does the high number of indigenous people living outside urban areas cast doubt on the utility of uniform poverty indicators, but cultural differences also reduce the ability of researchers to interpret income data with any confidence as their benchmarks are based on certain potentially culturally sensitive assumptions. While data limitations mean that it is hard to get away from income-based measures it is particularly important to explore other indicators in measuring indigenous poverty.

This paper pursues a multi-dimensional approach to poverty by exploring health, housing, crime and land as well as the more traditional income-based measures. Limited socioeconomic data about the indigenous population mean that the analysis is largely confined to the one-off 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS) data. However, descriptive statistics from the last three censuses and the 1994 Income Distribution Survey supplement the analysis.

The paper is written in six sections. First, a discussion of several case studies and personal accounts in order to illustrate the indigenous experience of poverty. Second, an introduction of several conceptual and empirical issues for measuring the multi-faceted nature of indigenous poverty. Third, a description of the data and method used to analyse indigenous poverty. Fourth, a presentation of data which illustrates the multi-dimensional nature of indigenous poverty. The penultimate section canvasses strategies for tackling indigenous poverty while the final section provides some concluding remarks.

Indigenous experiences of poverty—some case studies

Poverty research frequently runs the risk of appearing rather distant from the reality of poverty. In order to combat such problems this paper illustrates the reality of indigenous poverty in modern Australia using several case studies. The issues raised in these studies are largely reflected in the analysis that follows.

In the Western Australian Report for the Royal Commission into Aboriginal Deaths in Custody Commissioner, Pat Dodson described the economic reality of many indigenous families using a case study of 'Nan' and 'Pop' (Commonwealth of Australia 1991d). Nan and Pop were raised in the rural south-west of Western Australia where they and their parents were employed as cheap farm labour. Both achieved only very basic literacy standards to grade three level. While Nan was a non-drinker of alcohol, Pop only abstained from consumption of alcohol when required to by poor health.

In 1991, Nan and Pop had six sons, 23 grandchildren (ranging in age from seven to 22) and four great grandchildren. While the family's duties were in a

constant state of flux, the household budget barely covered the expenditure required to look after themselves and two grandchildren. There was no allowance for unplanned contingencies such as funerals, transient relatives, school excursions and activities, extended family crises, and credit payments. These contingencies from time to time prevented, or delayed, regular financial commitments being met. Insufficient income had forced a continuous reliance on relatives and welfare organisations to provide a 'top-up' in order to survive from pay day to pay day or to meet any other necessities. Generally, final days leading up to pay day meant a diet of cheap meat and bread.

Social security payments to two young adult grandchildren were received on the alternate week to that when Nan and Pop received their pension. Within two days of that payment being received, the total was spent on alcohol, other entertainment, clothes, taxis or food. In addition, Nan and Pop provided food and support to the friends and peer relatives of the grandchildren who came to stay from time to time. There was a chronic lack of money to acquire basic household necessities such as furniture so a heavy reliance was placed upon welfare or charity organisations for these.

Nan and Pop's Homeswest residence was in a very dilapidated state. Unsealed eaves near the roof allowed cold air to penetrate throughout the rooms. Chronic illnesses like asthma, arthritis, bronchitis and susceptibility to the cold demanded the need for a reliable heating source. The shower leaked through the wall into the adjoining bedroom. Brick mortar had become chalky causing bricks to become loose. The roof was sagging both at the tile level externally and at the internal ceiling level due to drainage malfunction. The internal walls required painting and plaster work. As a consequence the house did not provide much protection from the elements. This was particularly so during the winter months when their health was affected considerably. Nan and Pop's bedroom was virtually an icebox. Being in possession of only a small one-bar heater they could only stay warm by either sitting very close to the heater or by remaining fully covered up in bed. On one occasion, Nan had sat too close to the heater and received burns to the front of her legs.

With regard to diet, Nan's blood sugar level was far too high. The Aboriginal Medical Service urged Nan to go on a special diet in order to reduce the level of sugar. The special meals could be delivered daily to Nan at a cost of $150 every three months. Assistance was sought from the Department of Community Services to meet the cost associated with this service. They responded by stating that it was not their policy to fund such a service and to do so in this instance would set a precedent for similar requests. Lack of a response from the Department for Community Services to the request meant that Nan's limited finances dictated a diet that could accommodate all members of the household. Basically, their diet consisted mainly of cheap red meat.

A few of Nan and Pop's grandchildren were becoming involved in drugs and the culture associated with them. They had been known to assist friends in the sale of drugs, which enabled them to partake in their consumption without having to find money to pay for them. From time to time teenage and young adult grandchildren came home drunk with others, and become boisterous, aggressive and often fought amongst themselves. Police had noticed this activity. Sometimes Nan was forced to call in the police to stop them, which could result in arrests. The grandchildren had

been labelled 'troublemakers' by police. As a consequence, police were giving them a fair amount of attention.

Each time a grandchild was arrested Nan and Pop assisted with matters such as bail. Each time a grandchild was due for court appearances both grandparents attended court to provide support. Their age dictated that they be escorted to the court building so it might be necessary to use taxis or a son's vehicles.

Essentially, Nan and Pop's situation is a clear example of the anomaly that exists for Aboriginal people between income received, and fortnightly expenditure. Nan and Pop are not alone in that situation and, as the details provided in their budget reveals, economic realities impinged on every facet of life. The lack of income was a major dynamic in their poverty and fed back into housing, health and justice spheres-of-life.

The 'Stolen Generations' inquiry also highlighted many case studies of the indigenous experience of poverty and its effects (Commonwealth of Australia 1997). For example, Penny and Murray were made wards of the state and placed under the care and protection of the Queensland State Children's Department after the local police sergeant questioned their mother's capacity to look after her children in a fit and proper manner. Their experiences at the State Children's Orphanage at Townsville were recounted to the inquiry.

> It was as though someone had turned the lights out – a regimented existence replacing our childhood innocence and frolics – the sheer snugness, love, togetherness, safety and comfort of four of us sleeping in one double bed – family! Strange how the bureaucracy adopts the materialistic yardstick when measuring deprivation/poverty/neglect (Commonwealth of Australia 1997: 86).

The conflation of poverty with neglect by authorities had adverse consequences for many of the indigenous people who talked to the inquiry:

> Even though at home you might be a bit poor, you mightn't have much on the table, but you know you had your parents that they loved you. Then you're thrown into a place. It's like going to another planet (Confidential evidence 323, Tasmania, Commonwealth of Australia 1997: 246).

The effects of separation on past generations can be handed on and contribute to current segregation of children from their parents. Separation is linked with psychiatric disorders as well as trauma and loss, which may render a person less secure, creating later difficulties in forming relationships. Many children of those who were removed have not been exposed to, or in some cases have rejected, the controls and authority of indigenous culture:

> Sean is my son. He is 16 years of age. He is in jail at the moment. He has been in and out of jail since he was 12 years of age. He does not know how much it hurts me to see him locked up. He needs his family. I need him. ... Sean's father had also been taken away from his parents. He had gone to Mogumber Mission. He left me when Sean was only two years of age ... Sean's dad could not cope with his childhood. He was subjected to sexual abuse and made to work really hard. ... No wonder Sean is the way he is. I and Sean's dad have had our own problems and I suppose they have rubbed off on Sean (Commonwealth of Australia 1997: 556).

There is clearly a direct association between removal and both the likelihood of criminalisation and instances of removal. The compounding effects of separation and criminalisation were shown dramatically in the Royal Commission into Aboriginal Deaths in Custody investigations. Of the 99 indigenous people who died

in custody, 43 had been removed from their families as children; 43 had been charged with an offence at 15 years of age or younger (Commonwealth of Australia 1991a: 5–6).

These cursory case studies illustrate the need for a multi-dimensional approach to indigenous poverty. Not only because income measures ignore much of the reality of indigenous community, but also because even well meaning policy intervention can have dire consequences. Social engineering which ignores indigenous interests is likely to be both paternalistic and counter-productive (Martin 1998). The appropriate policy mix needs to be built on full information about the behavioural interactions between the distinct spheres-of-life and reached through a process of consultation with the indigenous community.

Conceptual issues in measuring indigenous poverty

The conceptual problems for measuring indigenous poverty are recognised as problems in the poverty literature (Sen 1992; Saunders 1994). The problems for poverty analysis arising from non-market work, family size and composition, relative prices and the geographic distribution of the population indicate that there is a need for a more complete measure of poverty rather than a specific measure for indigenous poverty (Altman and Hunter 1997).

The need for a more expansive definition of poverty has been recognised for some time (Altman and Nieuwenhuysen 1979: 3). The potentially culturally sensitive assumptions of poverty data reduce the ability of researchers and policy makers to interpret data with any confidence. Circumstances facing indigenous people are so different from those facing other Australians that income measures probably misrepresent the nature and extent of income poverty among this substantial portion of Australia's disadvantaged (Altman and Hunter 1997).

Not by bread alone

The command over resources is undeniably a major factor determining whether a person is poor. However, one cannot live on bread alone and people need access to adequate health care, housing and justice to avert either absolute or relative deprivation.

An appreciation that welfare is defined from a range of indicators can be seen in the work of Walzer (1983). Walzer's concept of complex equality shows that welfare is determined in several 'spheres of life', including several non-monetary spheres. Walzer's chief insight was to observe that exchanges within different spheres of life have different meanings, and therefore operate under different sets of rules.

A related approach is the Scandinavian levels-of-living measures of poverty which use several indicators of poverty to indicate the living standard (Erikson and Uusitalo 1987). These Scandinavian measures involve detailed surveys of nine different dimensions of individual standards of living. These surveys, which have been conducted in Sweden since the late 1960s, cover: health; employment; economic resources; education; security of person and property; family and social environment; housing and local resources; recreation; and political resources. The disadvantage of this approach is that it probably over-emphasises the autonomy of the spheres of poverty. While it is important to recognise the differences in facets of

poverty, it would be a mistake to ignore the behavioural inter-relationships between the apparently disparate spheres of living. For example, chronic health problems may have long-term implications for income earning potential.

Whatever social indicators are included in poverty analysis a clear definition of the non-monetary spheres is important. For example, there is some diversity of opinion within the Aboriginal community regarding the appropriate definition of health for a community or group. The World Health Organisation (WHO) defines health as not just the absence of disease but a state of complete physical, mental and social wellbeing. The National Aboriginal Health Strategy Working Party (NAHSWP 1989), discussed the concept of health used by Aboriginal people and concluded that an appropriate definition of health is:

> Not just the physical wellbeing of the individual but the social, emotional, and cultural well-being of the whole community. This is a whole-of-life view and it also includes the cyclical concept of life-death-life [p.x].

While a whole-of-life definition is attractive, this study focuses on the presence of pathology to highlight the extent of long-term indigenous ill health across a range of family types. The extension of the health definition suggested by WHO and NAHSWP will, more than likely, exacerbate the levels of poverty recorded for indigenous Australians. The approach adopted for the rest of this paper is to use operational definitions of the spheres of life permitted by the available data.

Intersection of poverty and the criminal justice system

One of the 'spheres of life' examined in the Scandinavian literature relates to security issues. The high level of arrest among Australian indigenous people, particularly young males, appears to have long-term implications for their economic status (Hunter and Borland 1997; Hunter and Schwab 1998). In addition to reducing the employment and educational prospects of the individuals arrested, arrest directly reduces the welfare of families who lose potential breadwinners.

While the level of crime is an important issue for the measurement of living standards, the high level of drinking-related crime in indigenous communities means that the security sphere of living is particularly complex. For example, it is important to distinguish the victims from the perpetrators of drinking-related 'crimes' even though both dimensions have implications for the living standards of indigenous families.

Another, almost unanswerable, question is how to encapsulate people who are currently detained in police custody within poverty measures. Given that detainees and prisoners form a substantial portion of the indigenous population (Broadhurst 1997), ignoring this segment of society may distort the overall picture of living standards. The designers of NATSIS were aware of this problem and included prisoners in its sample. Unfortunately, severe limitations on information available and constraints on prisoner's freedom limit the usefulness of such data.

Data and method

NATSIS data

The following analysis will be conducted at both an individual and household level because of the potentially complex sharing rules that may exist within indigenous income units. Household level analysis will focus on a sample to 3,433 indigenous households from NATSIS.[2] Of the 1,816 non-indigenous respondents excluded from the individual analysis there were 13 people who failed to answer the question on whether or not they were indigenous.

Typically, NATSIS household data do not report the characteristics of 'special dwellings'. However, since the special dwelling category includes all residents of boarding schools, hostels, convents, old people's homes, and prisons, it would be remiss to exclude such candidates from a measure of indigenous living standards. In order to include them in the analysis several assumptions are made. For example, these dwellings are assumed to have access to basic household utilities such as electricity, water and toilet facilities. Also, residents of such dwellings are assumed to have access to the same average number of bedrooms as respondents in the bottom quartile of the sample. While most residents of special dwellings are included in the sample, 158 prisoners are excluded because the curtailment to their freedom means that their individual characteristics, such as income, do not adequately capture either their welfare or command over resources.

When calculating household variables, non-indigenous respondents were included as affecting the welfare of the indigenous residents. Also, for income and arrest data these household variables were calculated by aggregating over all residents who were aged 15 years and over. For the health variables, household characteristics were calculated by aggregating over all residents in respondent households.

Additional data on arrest and income

In order to benchmark the relationship between indigenous income and arrest the 1994 local court data for New South Wales postcodes were acquired from the New South Wales Bureau of Crime Statistics and Research. The total number of arrests in each postcode was estimated by those individuals who had been arrested, fingerprinted and charged. The total number arrested (45,048) excludes persons who were summoned to appear in front of the court and those who had been arrested twice. The arrest rate used compares the number of arrests to the adult population for the respective postcodes (adjusted by the growth of the estimated residential population in New South Wales between June 1991 and June 1994). The local arrest data is ranked using income data from the 1991 Census.

Method

The empirical analysis in this paper examines two questions. First, what is the extent and depth of indigenous poverty relative to poverty amongst non-indigenous Australians? As indicated above, data limitations mean that we are forced to use a relative income measure of poverty. The second question is whether there are other significant dimensions to indigenous poverty. An elementary descriptive technique is used to illustrate the multi-faceted nature of indigenous

poverty. Several welfare indicators, including housing, health and security, are measured for various groups of indigenous households to show that poor outcomes in a range of spheres of life are a problem for even the most advantaged indigenous people.

There is no agreed 'best approach' to setting a poverty line. The comparison of indigenous and non-indigenous poverty is fraught with difficulties from several perspectives (Altman and Hunter 1998). Rather than directly measure poverty it is usually much simpler to measure deprivation relative to the lowest level of income, consumption or expenditure enjoyed by the most well endowed half of the population (that is, the median). The 'median approach' defines someone as poor if they earn, consume or spend less than a certain fraction of the median.

In a comparative context, Mitchell (1991) suggested that approaches which rely on consumption and expenditure patterns present greater difficulties in application than income approaches. For this reason the median income approach suggested by Fuchs (1965) and used by Mitchell (1991) is adopted here.

The relative simplicity of Fuch's approach to income poverty facilitates sensitivity tests of the results. Following Mitchell (1991), indigenous and non-indigenous poverty is measured relative to 40, 50 and 60 per cent of Australia's median income for the period in question. The more substantial the clustering of poor just under the 50 or 60 per cent of the median, the greater the difference between the three measures of poverty.

The unique features of indigenous households highlight the importance of testing the robustness, or sensitivity, of measured poverty to changes in assumptions. For example, the large differences between the size of indigenous and non-indigenous families and households mean that the issue of economies of scale in household production has important implications for the measurement of indigenous poverty.

The real cost of raising large indigenous families should be reflected in the 'equivalence scale' used by a researcher to adjust income for the size and composition of a family. Unfortunately, the range of equivalence scales used by poverty researchers becomes significantly wider as the number of children increases (Whiteford 1985: 13, 106–7). Given that the average size of indigenous households was almost twice that of other Australian households in 1991, the large variations in the poverty line estimates for large households cannot be ignored. Three equivalence scales will be used in the analysis. The major focus will be on the Organisation for Economic Co-operation and Development (OECD) scale which gives a weight of one to the first adult, 0.7 to the second and subsequent adults and 0.5 to all dependents.[3] The sensitivity of the results will be tested using equivalence scales which give less weight to larger households.[4]

The depth of disadvantage in income, housing, health, arrest and land among indigenous Australians

Almost all of the analysis of indigenous poverty revolves around head count measures of income poverty (Ross and Mikalauskas 1996). This paper attempts to remedy the lack of analysis of non-monetary poverty among the indigenous population with the first substantial analysis of the multi-dimensional nature of indigenous poverty.

Not only is indigenous poverty deep and entrenched, but the nature of the poverty experienced may be qualitatively different to that of other poor. In order to highlight the multi-dimensional nature of indigenous poverty a range of other outcomes which directly impinge upon indigenous people's wellbeing are described. In addition to the conventional income measures of poverty, a range of other welfare indicators are used including: housing, health, justice and affinity with land. Before describing the other dimensions of poverty within indigenous households, it is necessary to update the poverty estimates for indigenous and other Australians (Table 1).

Table 1. Head count measures of poverty as measured by the proportion of households and income units with income below various percentages of the Australian median income, 1994–95

	Indigenous Australians Per cent of median income			All Australians Per cent of median income		
	<40%	<50%	<60%	<40%	<50%	<60%
Households' raw income	13.9	23.3	31.8	17.1	25.4	31.1
Equivalent income						
OECD scale	12.8	31.4	49.2	6.2	11.7	25.8
Whiteford (1985)	10.9	31.2	47.7	6.1	17.3	28.0
Square root of household size	13.5	33.2	41.8	7.9	20.9	28.7
Income units' raw income	34.4	44.7	52.4	17.8	23.3	29.3
Equivalent income						
OECD scale	22.1	46.1	55.1	8.2	12.7	27.0
Whiteford (1985)	32.0	40.3	58.2	8.3	14.8	29.2
Square root of household size	35.4	41.6	65.1	8.8	19.5	30.3

Notes: Calculation of equivalent income for Australia is based on the Survey of Income and Housing Costs, Australia 1994–95. Equivalence scales described in Mitchell (1991) and Saunders and Smeeding (1998). Raw income poverty does not adjust income by equivalence scales to account for the size and composition of families (income unit) or households.

Source: 1994 NATSIS and 1994–95, Survey of Income and Housing Costs unit record files.

The large differences in the raw income measures of poverty illustrate the importance of controlling for household composition. For example, poverty among indigenous income units (that is, families which share combined income amongst their members) is about twice that of indigenous household poverty. This observation reflects the fact that differences in household sizes are largely due to the number of families living in indigenous households.

Three equivalence scales are used in Table 1 to test the sensitivity of the results in view of the incipient differences in household composition. As indicated above, the preferred equivalence scale is the Organisation for Economic Cooperation and Development (OECD) scale which gives higher weights to larger indigenous households or families and therefore is less likely to underestimate the costs involved in running such households.

The application of equivalence scales to household income increases the disparity between indigenous and non-indigenous poverty. Indigenous poverty is more pronounced when using the OECD scale because of the higher weights given to larger households. For example, 31.4 per cent of all indigenous households, 21.4 percentage points more than the estimate for all Australian households, had less than 50 per cent of the median household income (adjusted using the OECD scale)

in the 1994–95 Survey of Income and Housing Costs. The other equivalence scales have substantially lower measures of indigenous poverty vis-à-vis Australian households with the differential being reduced to less than 14 percentage points. Similarly, poverty among indigenous income units tends to be higher relative to other income units when measured using the OECD scale.

Table 2. Multi-dimensional nature of indigenous poverty, 1994

	Quintile of equivalent household income (OECD scale)				
	1	2	3	4	5
Income (in 1994 dollars)					
Equivalent income[a]	$5,419	$7,615	$9,415	$12,858	$25,218
Raw household income[a]	$15,176	$22,617	$27,893	$39,249	$57,085
Housing					
Housing costs (in 1994 dollars)[a]	$1,988	$3,102	$3,422	$3,670	$5,093
Number of bedrooms per person[a]	0.93	0.80	0.91	0.82	1.15
Has all household utilities (per cent)[a]	93.7	95.0	94.9	94.3	97.1
All household utilities work (per cent) [a]	83.8	84.8	85.3	85.7	87.5
Health					
Long-term health problem (per cent)	33.1	29.3	37.1	32.8	28.2
Gone without food in last 4 weeks (per cent)[a]	7.3	7.6	4.5	3.9	2.2
Justice					
Arrested in last 5 years (per cent)	18.4	17.6	16.4	13.2	10.9
Number of times arrested (if arrested)	2.42	3.13	3.31	2.06	2.24
Hassled by the police (per cent)	8.6	6.8	7.3	7.2	5.7
Police brutality (per cent)	1.3	1.9	2.2	2.1	0.9
Victim of crime (per cent)[b]	20.4	18.8	23.1	19.9	20.1
Taken from natural family (per cent)	8.6	10.6	9.0	8.4	9.5
Land					
Recognise homelands (per cent)	68.8	70.3	72.3	71.5	70.7
Allowed to visit homelands (per cent)	52.0	50.9	54.0	53.6	53.9

Notes: Based on a sample of 3,433 indigenous households. Income is expressed in 1994 dollars. Household utilities include electricity, gas, water, sewerage, running water, toilets and bathroom.

a. Denotes that the variable is measured at the household level.

b. The proxy for victims of crime is the proportion of households in which at least one person was either verbally or physically assaulted. All other variables represent the average experience of a person in a household in the respective quintile. The justice variables only refer to the adult population in the respective households.

Source: 1994 NATSIS unit record file; OECD equivalence scale were used.

The other advantage of the OECD scale is that it appears to be better at identifying clusters of poor people. Large clusters of poor indigenous income units can be found just below the poverty line defined as the 50th percentile of the median income adjusted by the OECD scale. Exactly 24 per cent of indigenous income units have between 40 and 50 per cent of this median income. This contrasts with the substantial clusters of non-indigenous poor with income just above the 50th percentile of the median income. The non-OECD scales tend to spread out the poor between the 40th, 50th and 60th percentiles of median income. It appears that the OECD scale give us more information about the distribution of indigenous and non-indigenous poor.

The homogenising influence of the other equivalence scales, at least between indigenous and non-indigenous income units, largely reflect the fact they discount the costs of larger families. The validity of using such scales is not effectively challenged by noting the differences in poverty measured by the respective scales. However, in the absence of independent corroboration of the various scales, the OECD scale will be used in the remainder of this chapter to highlight the differences between indigenous and non-indigenous poverty. As it happens, none of the following results is sensitive to the choice of equivalence scales.

Table 2 illustrates the multi-faceted nature of indigenous poverty by describing the welfare indicators across several spheres of life, including housing, health and security. In order to show that income cannot be considered the sole measure of indigenous welfare, these welfare indicators are measured across the entire distribution of indigenous income. Indigenous households are ranked into quintiles of equivalent household income and the average outcomes for the relevant spheres of life are measured for each group of households.

The basic results from Table 2 show that since poor outcomes in non-monetary spheres are endemic, even among the relatively well off indigenous households, it is inappropriate to focus solely on income poverty. For example, the top 20 per cent of households, with income adjusted for household composition using the OECD equivalence 1991, are the only quintile group who have, on average, more than one bedroom per resident. That is, overcrowded housing may be an issue for many households even in relatively advantaged indigenous families. The housing backlog in the indigenous community is even more apparent when one examines whether household utilities work. The number of households which live in accommodation where all the utilities (such as electricity, gas, water, sewerage, running water, toilets and bathroom) work is almost as large in the top quintile (87.5 per cent) as it is in the bottom quintile (83.8 per cent) of indigenous households.

Similarly, the high level of arrest and victimisation of indigenous people in both high and low income households means that income based measures do not tell the whole story of indigenous poverty. While there is a decline in indigenous arrest and victimisation rates as equivalent household income increases, the differences are not as large as is anticipated in the literature. Socioeconomic factors are generally thought to be critical determinants of crime in the indigenous and non-indigenous communities alike. For example, Commissioner O'Dea wrote about the economic conditions implicated in the juvenile offending of one of the indigenous people who died in custody:

> His juvenile offence history needs to be seen in the context of severe family poverty and hardship, instability in the family as a unit, partly as a result of

> institutional care orders. For most of the period of his upbringing [his mother] was, in effect, a sole parent. In addition to these matters, [he] had a hearing defect which went unrecognised for years (Commonwealth of Australia 1991b: 287).

While the association between socioeconomic factors and the justice or security sphere-of-life has been demonstrated in the community at large, it is not very strong in the indigenous community with almost 11 per cent of household members in the top quintile of equivalent household income in NATSIS being arrested in the last five years. Notwithstanding the weak nature of the association, almost every measure of security is higher in high income indigenous households. The exception to this generalisation is the proportion of family members who were members of the 'stolen generation'. In the top quintile of equivalent income 9.5 per cent of household members, almost one percentage point more than that for the bottom quintile, were taken away from their natural family.

Of all the facets of indigenous poverty, health stands out as a major concern. The poor health outcomes of many indigenous people indicates that one's welfare is affected by factors other than household income. Long-term health problems are apparent for one-third of indigenous households in both low and high income groups. The current government's emphasis on addressing indigenous health may have a positive impact on welfare independent of the income of the household.

The effect of dispossession as reflected in the ability to recognise homelands and whether or not people were allowed to visit homelands was an issue for both high and low income households. While access to land and the concomitant non-monetary benefits often ascribed to indigenous attachment to land is obviously an important issue for many respondents, the quality of the NATSIS data on cultural issues has been questioned (Peterson 1996).

The overall results for Table 2 were not sensitive to a change in the unit of analysis or a change in the equivalence scale used to adjust for differences in family composition (Appendix Tables A1 and A2). Changing the focus of the analysis to income units rather than households increased the dispersion of equivalent income measured using the OECD scale, and therefore increased the relative advantage of a unit in the top quintile, but actually worsened the outcomes in the non-monetary spheres for the high income groups compared with the low income groups. The proportion of income units arrested in the top quintile (12.8 per cent) was actually higher than that for the analogous high-income households (10.9 per cent). In contrast, the proportion arrested in the bottom quintile income units was lower than that observed for analogous households. The point is further driven home by the fact that long-term health problems are pronounced in the top, rather than bottom, quintile income units. On average, 30.9 per cent of the relatively advantaged income units having a long-term health problem compared to only a quarter of income unit members in the bottom quintile.

Similarly, changing the equivalence scale used in Table 2 does not alter the basic message (Appendix Table A2). The sensitivity analysis focuses on using the scale based on the square root of household size because, among the three methods used in this study, this equivalence scale gave least weight to large families and is therefore the most likely to test the robustness of the results. The above analysis would not be qualitatively changed by a change in equivalence scale with poor housing, high arrest and long-term health problems being commonplace even in high income households even when the effects of large families are discounted.

Table 3 describes the important correlates of equivalent household income identified in earlier studies (Daly 1995). It will surprise no-one that high income groups are more likely to be employed in mainstream (non-CDEP scheme) employment, have better educational attainment and are more likely to live in capital cities. What is interesting is the level of concentration of these characteristics in the top quintile of equivalent household income. While 69.9 per cent of household members in the top quintile are employed in non-CDEP scheme employment only 36.6 per cent of households in the fourth quintile are so employed. The other quintiles all have substantially less than one-sixth of indigenous households in non-CDEP scheme employment.

The other correlates are also concentrated, with the top quintile being about three times more likely to have a degree or diploma than the bottom quintile. Similarly, top quintile households are about twice as likely to have another post-secondary qualification. Top quintile members are also more likely to live in a capital city as opposed to remote Australia.

The inclusion of some basic measures of household composition in Table 3 yields a couple of insights. First, large numbers of children, in both absolute terms and relative to the size of the household, are strongly correlated with equivalent household income. Second, bottom decile households are less likely to have two adults probably reflecting a concentration of sole parents. There appears to be an important feedback between the number of dependents relative to the number of adults and the ability to participate in the labour market.

Table 3. Factors potentially correlated with poverty among indigenous households, 1994

	Quintile of equivalent household income (OECD scale)				
	1	2	3	4	5
Labour force status					
Employed non-CDEP (per cent)	3.7	6.5	16.3	36.6	69.9
CDEP (per cent)	7.2	8.6	9.3	12.8	9.0
Unemployed (per cent)	27.6	28.9	21.7	17.0	7.6
Not-in-labour-force (per cent)	61.5	56.0	52.7	33.6	13.5
Education (highest qualification attained)					
Degree or diploma (per cent)	2.0	1.6	1.9	3.2	6.2
Vocational qualification (per cent)	4.9	5.4	5.6	7.2	10.8
Other qualification (per cent)	2.9	3.2	2.3	4.4	5.3
Year 10 certificate (per cent)	0.8	0.8	0.7	0.9	1.0
Year 12 certificate (per cent)	0.4	0.3	0.5	0.2	0.5
No qualification (per cent)	89.1	88.8	89.1	84.0	76.2
Geography					
Capital city (per cent)	18.1	16.2	15.0	12.5	21.1
Other urban (per cent)	52.9	53.9	54.3	58.1	52.1
Rural (per cent)	15.3	12.8	15.1	15.9	15.6
Remote (per cent)	13.7	17.1	15.6	13.5	11.2
Household composition					
Number of adults (aged 15 and over)	1.99	2.40	2.52	2.84	2.38
Number of dependents	2.34	2.02	1.83	1.53	0.75

Notes: Based on a sample of 3,433 indigenous households.

Source: 1994 NATSIS unit record file; OECD equivalence scale were used.

None of the above observations are qualitatively altered by analysing income units rather that households (Appendix Table A3). While income units are much smaller than households, the relative advantage of the top quintile, in terms of employment, education and location, is substantially greater for income units than for households.

The lack of homogeneity among high- and low-income households evident in Table 3 highlights the multi-dimensional nature of indigenous poverty. The results are not merely an artifact of uniform low economic status among indigenous households. The inadequate housing, high arrest rates, poor health and a dislocation from traditional lands are a common experience in indigenous households irrespective of their income.

Given the frequent dichotomy made between 'traditional' and urban indigenous communities, sensitivity analysis is also conducted by examining the NATSIS respondents in capital cities (Appendix Table A4). There are very high levels of morbidity and arrest even in high-income urban households. While about one-third of top quintile householders still experience long-term health problems, the bottom 60 per cent of householders are actually 10 or more percentage points more likely to experience problems. Similarly, while the levels of arrest are very high in top quintile households, they are more than twice as large in the bottom 40 per cent of indigenous households in capital cities. These observations are underscored by the fact that these top quintile urban households were the only indigenous households to have similar household composition and approximately the same levels of education as those evident in the non-indigenous population (Appendix Table A5).

In order to distinguish the indigenous community from other poor Australians convincingly, it is necessary to compare the experiences of indigenous households and income units with similar non-indigenous units. As a first step, the NATSIS indicators of poverty and correlates of poverty are calculated for households ranked by the overall distribution of equivalent income using the Survey of Income and Housing Costs, 1994–95 (Appendix Tables A6 and A7). Despite the relatively small number of indigenous households and families in the top quintile of Australian income the broad results indicated above remain unchanged. That is, over one-quarter of very high income indigenous households and families have members with long-term health problems and about 10 per cent of members of these households and families have been arrested.

Benchmarking indigenous arrest rates and chronic health problems against the wider community

The NATSIS data are an extraordinarily rich survey of the multi-dimensional nature of indigenous poverty. The lack of readily available comparable data on non-indigenous Australians makes it difficult to identify the analogous outcomes in the rest of the Australian community. Notwithstanding, the following estimates are indicative of both the substantial chasm between indigenous and non-indigenous arrest and health, and the differing relationship between income and these outcomes.

To obtain roughly analogous arrest data for the non-indigenous population it is necessary to combine data on the overall number charged in local New South Wales courts for 1994 with 1991 Census postcode data on household income and

composition. The census data are used to rank postcodes by equivalent household income. About half of 1 per cent of adult residents were arrested in rich postcodes (in the top quintile). Approximately 1.7 per cent of adult residents in the bottom quintile postcodes were arrested in 1994. There is a clearly a strong relationship between equivalent income and arrest in the community at large with the poor areas being three times more likely to have households with members who have been arrested. In contrast, indigenous households in the top quintile of the Australian distribution were less than twice as likely to have members who have been arrested as indigenous households in the bottom quintile (Appendix Table A6). Therefore high income indigenous households are much more likely to have members who have been arrested than their non-indigenous counterparts. The adults in high income indigenous households are actually 19 times more likely to be arrested than the adult residents of rich postcodes. Living in relatively affluent households is obviously not an effective means for indigenous Australians to avert negative experiences with the justice system.

Certain diseases disproportionately affect indigenous Australians, including: diabetes, circulatory disorders, respiratory problems, ear disease, cancer and injuries. Even after the differing age profiles of indigenous and other Australians are accounted for, Aboriginal death rates are between two and four times that of the rest of the population (National Health Strategy 1992).

While the National Health Strategy (1992) confirms the extremely poor health of indigenous Australians, it also establishes that there is a strong correlation between socioeconomic status, income and health outcomes for other Australians. The high levels of risk factors, such as smoking, alcohol, sedentary behaviour and obesity, among low income families appear to result in much higher rates of chronic illnesses than among more affluent Australians. Multivariate analysis showed that men and women in low income families are, respectively, 45 and 13 per cent more likely to have serious chronic illnesses than those in high income families (National Health Strategy 1992: 38). Low income men were 81 per cent more likely to report being in fair/poor health while low income women were 64 per cent more likely to do so.

The distribution of long-term indigenous health problems across Australian equivalent family income (Appendix Table A7) indicates that high income indigenous families are only 1.2 percentage points less likely to experience long-term health problems than low income families. When expressed in relative terms, high income families are only about 4 per cent less likely to have one member with a long-term health problem. Notwithstanding some variation in the chance of having a long-term health problem revealed in Appendix Table A7, it is evident that there is only a weak relationship between indigenous family income and chronic health problems. This result is in stark contrast to the National Health Strategy analysis which indicates a strong correlation between Australian equivalent family income and health status.

Tackling indigenous poverty: possible policy responses

The above results indicate that the nature of the poverty experienced by indigenous households may be qualitatively different from that of other poor households. While other poor Australians may experience inadequate housing they are unlikely to be beset by the high levels of arrest and ill health endured by the indigenous

community. For example, indigenous adults are over eight times more likely to be arrested than are other Australian adults (Ferrante and Loh 1996: 39). The fact that indigenous life expectancy continues to be about 20 years less than other Australians needs no further comment.

While the above analysis indicates that indigenous poverty is multi-faceted it is not necessary true that policy should separately address deficiencies in each sphere of life. It is important to emphasise that the spheres of life are not necessarily independent as behavioural inter-dependencies may either help or even hinder progress in other areas. However, simply by pointing out that there are non-monetary spheres of life does not mean that a piecemeal approach to policy will significantly augment indigenous welfare.

Future research should make it a priority to tease out the social interactions between outcomes that determine the wellbeing of the poor. For example, high rates of arrest contribute to indigenous poverty through reduced employment prospects, lower educational attainment, lower incomes and directly reduced welfare for the period of incarceration (Hunter and Borland 1997; Hunter and Schwab 1998). If other social interactions are significant, then the best method for addressing indigenous poverty may be a coordinated strategy which simultaneously responds to resource deficiencies, community health, unnecessary interactions with the criminal justice system and indigenous attachment to the land.

Indigenous people must make up a lot of ground if they are to reduce their poverty levels to that seen in the non-indigenous population. The depth of indigenous poverty identified in this paper provides clear evidence of the need for programs which target the indigenous poor. The housing backlog described by Jones (1994) indicated that treating the indigenous and other poor in the same manner may perpetrate the relative disadvantage of the indigenous community. In order to assist indigenous poor people to catch up with the rest of the Australian community, indigenous-specific programs to improve health and housing, increase educational attainment and reduce arrest rates are required.

Conclusion

The metaphor that Australia contains three 'Nations', the rich, the poor non-indigenous Australians and indigenous Australians is easily justified. Indigenous people's living standards are both qualitatively and quantitatively different to that of other poor and rich Australians.

One of the major findings of this paper is that indigenous poverty is not sensitive to changes in measurement methodology. While the same methodology must be applied across time if trends in poverty are being examined (Altman and Hunter 1997), the facts of indigenous poverty are so stark that the use of different methods will not materially change the findings at any point in time. Esoteric debates about the efficacy of using the Henderson poverty line, or which equivalence scale to use when measuring poverty, will not alter the substantial and consistent differences between indigenous and non-indigenous populations. However, research into indigenous poverty must still ensure that differences in household sizes, or the size of other income units, are properly accounted for.

The many facets of poverty means that it is not appropriate to rely solely on income-based measures to indicate disadvantage (Travers and Richardson 1993).

The movement away from a reliance on such measures is embodied in the diversified strategy being considered by the Department of Social Security (DSS) in developing a framework for determining the adequacy of social security payments (DSS 1995). Clearly, the historical failure of income measures to capture the non-monetary spheres of welfare has distorted our overall picture of poverty.

Indigenous poverty appears to be similar to other poverty with low income being associated with poor outcomes in other spheres of life: high arrest, poor health and inadequate housing. This study illustrates that one distinguishing feature of the indigenous poor is the depth of indigenous poverty they experience across a range of welfare indicators.

Most of the conclusions of this paper are not new and are echoed in the recommendations of the Royal Commission into Aboriginal Deaths in Custody which suggested that poverty indicators need to be sensitive to measurements of the overall improvement in quality of life, not just to conventional economic measures such as employment rates and cash income (Commonwealth of Australia 1991c: 446). Although they may take time to develop, indicators that identify subjective and qualitative needs and outcomes are far more satisfactory than quantitative measures of participation in programs or improvements expressed in conventional measures of economic success. A useful model for the development of indicators might be the OECD Social Indicator Development Program, under which sets of indicators have been developed for determining the level of wellbeing for a range of social concerns, including: education; health; quality of working life; use of leisure time; physical environment; wealth and command over goods and services; social attachments; social opportunity and participation; and personal safety. However, given the enormous expense of collecting the NATSIS data and the resource implications in collecting wide-ranging surveys in the non-indigenous community, it probably better value to enlist creative use of existing unit record files to illuminate the reasons for poor health and high arrest among even relatively affluent indigenous Australians.

The main difference between indigenous and non-indigenous wellbeing is that poor outcomes in other spheres of life are not confined to those conventionally defined as poor in the indigenous community. Simply increasing the financial resources available to the indigenous poor may not be sufficient to alleviate their poverty. Living on the margins of 'Australian' society for more than 200 years may have generated a sense of alienation not easily cured.

The ethereal nature of a sense of belonging makes it difficult to contextualise. However, the indigenous population is unlikely to feel part of the Australian community while the government fails to acknowledge responsibility, and rectify through apology, the personal and cultural disruption suffered by the 'stolen generation'. Similarly, the Howard Government's continuing attempts to legislate to unilaterally extinguish property rights recently recognised by the High Court of Australia may lead to further alienation.[5] Notwithstanding this, Prime Minister Howard's revival of the reconciliation issue after the 1998 federal election may yet prove to be a positive initiative.

The emphasis of the role of social alienation in maintaining the relative disadvantage of indigenous people may seem vague and abstract. But the fact that social factors such as arrest and household composition are statistically demonstrated to be more important than access to educational institutions and employment means that the social environment cannot be ignored (Hunter and

Borland 1997; Hunter and Schwab 1998). It is not simply a matter of building schools and providing books. The paradigm presented by mainstream society plays an important part in whether indigenous people feel the desire to participate fully in Australian society.

Poor health and significant interactions with the criminal justice system are common experiences for even relatively advantaged indigenous households. Health and justice issues probably require the concerted attention of policy makers if there is any hope for the catch-up of indigenous welfare with that of the rest of the Australian community. While the Howard Government's focus on indigenous health problems provides a good start to this agenda, more attention needs to be paid to the depth of indigenous poverty in the other spheres of life.

Notes

1 That is, there will be a new emphasis on horizontal, rather than vertical, equity in program provision.

2 The household is defined broadly by the Australian Bureau of Statistics (ABS) as '... a group of people who reside and eat together (in a single dwelling) ... as a single unit in the sense that they have common housekeeping arrangements, i.e. they have some common provision for food and other essentials of living' (ABS 1990: 58; 1991: 60). In other words, the household definition is concerned with ascertaining the effective domestic units within a dwelling. Indigenous households are those where the primary reference person or the second person (usually the spouse or partner of the reference person) on the census form is indigenous.

3 The OECD scale is described in full in Mitchell (1991).

4 The other two equivalence scales used are Whiteford (1985) and the square root of household or income unit size (Saunders and Smeeding 1998).

5 The findings of the Commonwealth inquiry into the 'stolen generation' appears in *Bringing Them Home: National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from their Families* (Commonwealth of Australia 1997).

In 1992 and 1996 the High Court of Australia made seminal judgments which recognised the limited set of property rights for traditional indigenous Australians who can exhibit ongoing connection with either vacant Crown land or pastoral leases. The present Federal Government has enacted legislation that seeks to create certainty by extinguishing this 'native title'. The *Native Title Amendment Act 1998* makes some provision for compensation, but is not generally supported by the indigenous leadership.

Appendix A. Sensitivity analysis of poverty results

Table A1. Sensitivity analysis of the multi-dimensional nature of indigenous poverty, a focus on income units, 1994

	Quintile of equivalent income unit income (OECD scale)				
	1	2	3	4	5
Income (in 1994 dollars)					
Equivalent income	$2,680	$6,369	$8,206	$10,585	$22,787
Raw income unit income	$4,561	$9,922	$17,610	$19,349	$36,270
Raw household income[a]	$34,610	$34,753	$32,432	$38,266	$56,013
Housing					
Housing costs (in 1994 dollars)[a]	$2,947	$2,601	$3,191	$3,573	$4,348
Number of bedrooms per person[a]	0.59	0.70	0.70	0.75	0.91
Has all household utilities (per cent)[a]	93.5	92.4	93.3	92.6	95.2
All household utilities work (per cent)[a]	82.9	82.3	83.4	81.8	85.5
Health					
Long-term health problem (per cent)	25.0	32.1	33.9	39.8	30.9
Gone without food (per cent)[a]	8.3	8.3	7.7	7.2	4.1
Justice					
Arrested in last 5 years (per cent)	15.3	26.3	16.7	18.4	12.8
Number of times arrested (if arrested)	2.24	3.06	3.20	3.04	2.53
Hassled by the police (per cent)	10.2	12.3	6.6	7.7	6.1
Police brutality (per cent)	2.2	4.0	1.6	2.5	1.4
Victim of crime (per cent)[b]	12.5	14.8	15.6	13.4	13.5
Taken from natural family (per cent)	4.3	8.7	9.6	9.3	7.6
Land					
Recognise homelands (per cent)	72.8	77.7	74.3	77.5	73.6
Allowed to visit homelands (per cent)	50.0	57.7	55.4	55.9	56.6

Notes: Based on a sample of 7,113 indigenous income units. Income is expressed in 1994 dollars. Household utilities include electricity, gas, water, sewerage, running water, toilets and bathroom.

a. Denotes that the variable is measured at the household level.

b. The proxy for victims of crime is the proportion of income units in which at least one person was either verbally or physically assaulted. All other variables represent the average experience of a person in income units in the respective quintile.

Source: 1994 NATSIS unit record file; OECD equivalence scale were used.

Table A2. Sensitivity analysis of the equivalence scale used to measure indigenous poverty, 1994

	Quintile of equivalent household income (square root of household size)				
	1	2	3	4	5
Income (in 1994 dollars)					
Equivalent income[a]	$6,964	$10,085	$13,341	$18,517	$33,651
Raw household income[a]	$12,848	$18,173	$28,876	$38,752	$63,362
Housing					
Housing costs (in 1994 dollars)[a]	$2,171	$2,804	$3,489	$3,355	$5,252
Number of bedrooms per person[a]	1.01	1.04	0.73	0.79	1.05
Has all household utilities (per cent)[a]	95.0	94.8	94.2	94.5	96.7
All household utilities work (per cent)[a]	84.3	86.6	83.8	85.0	87.5
Health					
Long-term health problem (per cent)	33.7	36.1	32.2	31.4	27.1
Gone without food (per cent)[a]	5.4	7.4	5.7	3.9	3.1
Justice					
Arrested in last 5 years (per cent)	17.7	16.5	16.4	14.1	11.8
Number of times arrested (if arrested)	2.37	3.28	3.11	2.44	2.03
Hassled by the police (per cent)	8.9	6.1	7.5	6.5	6.7
Police brutality (per cent)	1.5	1.4	2.4	1.8	1.2
Victim of crime (per cent)[b]	19.3	16.6	21.8	22.3	22.3
Taken from natural family (per cent)	8.5	10.6	9.8	8.0	9.3
Land					
Recognise homelands (per cent)	64.7	70.8	73.2	72.5	72.3
Allowed to visit homelands (per cent)	49.3	54.2	53.0	52.0	55.9

Notes: Based on a sample of 3,433 indigenous households. Income is expressed in 1994 dollars. Household utilities include electricity, gas, water, sewerage, running water, toilets and bathroom.

a. Denotes that the variable is measured at the household level.

b. The proxy for victims of crime is the proportion of households in which at least one person was either verbally or physically assaulted. All other variables represent the average experience of a person in a household in the respective quintile.

Source: 1994 NATSIS unit record file; equivalence scales from Saunders and Smeeding (1998).

Table A3. Sensitivity analysis of the factors potentially correlated with poverty among indigenous income units, 1994

	Quintile of equivalent household income (OECD scale)				
	1	2	3	4	5
Labour force status					
Employed non-CDEP (per cent)	2.1	3.7	8.8	20.6	69.4
CDEP (per cent)	5.8	13.4	11.5	17.4	13.4
Unemployed (per cent)	24.0	37.2	24.0	16.6	4.9
Not-in-labour-force (per cent)	68.1	45.7	55.8	45.4	12.3
Education (highest qualification attained)					
Degree or diploma (per cent)	0.6	1.4	1.6	2.2	5.3
Vocational qualification (per cent)	2.0	4.9	5.2	6.1	11.2
Other qualification (per cent)	1.6	2.7	3.1	3.6	6.1
Year 10 certificate (per cent)	0.7	0.6	0.9	0.6	1.0
Year 12 certificate (per cent)	0.2	0.4	0.2	0.4	0.5
No qualification (per cent)	95.1	90.0	89.0	87.1	75.8
Geography					
Capital city (per cent)	13.0	12.7	14.2	11.7	17.3
Other urban (per cent)	43.2	45.7	49.3	50.6	50.2
Rural (per cent)	21.6	15.3	14.6	16.2	17.1
Remote (per cent)	22.2	26.3	21.9	21.6	15.4
Household composition					
Number of adults (aged 15 and over)	1.09	1.18	1.57	1.47	1.49
Number of dependents	0.79	0.91	1.60	0.87	0.52

Notes: Based on a sample of 7,113 indigenous income units.

Source: 1994 NATSIS unit record file; OECD equivalence scale were used.

Table A4. Sensitivity analysis of the multi-dimensional nature of indigenous poverty, a focus on households in capital cities, 1994

	Quintile of equivalent household income (OECD scale)				
	1	2	3	4	5
Income (in 1994 dollars)					
Equivalent income[a]	$5,423	$7,294	$9,300	$14,323	$29,126
Raw household income[a]	$13,593	$20,211	$24,434	$38,636	$58,904
Housing					
Housing costs (in 1994 dollars)[a]	$2,321	$3,679	$4,805	$5,016	$6,488
Number of bedrooms per person[a]	1.02	0.85	1.03	0.89	1.36
Has all household utilities (per cent)[a]	97.3	99.1	99.1	98.2	99.1
All household utilities work (per cent)[a]	80.5	84.2	84.2	87.7	93.9
Health					
Long-term health problem (per cent)	42.3	41.9	44.9	33.3	31.7
Gone without food in last 4 weeks (per cent)[a]	4.5	9.8	7.9	3.5	1.8
Justice					
Arrested in last 5 years (per cent)	21.4	23.8	13.7	15.1	9.0
Hassled by the police (per cent)	18.2	11.7	10.3	10.8	4.7
Police brutality (per cent)	2.1	2.4	2.7	2.5	0.4
Victim of crime (per cent)[b]	19.6	24.6	29.8	22.8	18.4
Number of times arrested (if arrested at least once)	51.3	63.2	46.5	28.9	26.3
Taken from natural family (per cent)	14.2	15.8	13.2	13.2	10.5
Land					
Recognise homelands (per cent)	67.3	64.9	59.6	72.8	63.2
Allowed to visit homelands (per cent)	56.6	55.3	47.4	64.9	55.3

Notes: Based on a sample of 569 indigenous households in capital cities. Income is expressed in 1994 dollars. Household utilities include electricity, gas, water, sewerage, running water, toilets and bathroom.

a. Denotes that the variable is measured at the household level.

b. The proxy for victims of crime is the proportion of households in which at least one person was either verbally or physically assaulted. All other variables represent the average experience of a person in a household in the respective quintile.

Source: 1994 NATSIS unit record file; equivalence scales from Mitchell (1991).

Table A5. Sensitivity analysis of the factors potentially correlated with poverty among households in capital cities, 1994

	Quintile of equivalent household income (OECD scale)				
	1	2	3	4	5
Labour force status					
Employed non-CDEP (per cent)	1.9	3.8	13.4	32.4	58.2
CDEP (per cent)	0.9	0.3	0.2	4.4	1.2
Unemployed (per cent)	17.2	28.4	16.0	11.7	4.0
Not-in-labour-force (per cent)	59.1	42.5	44.9	20.2	8.8
Education (highest qualification attained)					
Degree or diploma (per cent)	3.6	3.4	1.8	5.2	11.1
Vocational qualification (per cent)	8.0	6.5	9.8	6.1	14.8
Other qualification (per cent)	1.0	2.3	2.9	6.3	5.8
No qualification (per cent)	86.3	87.1	85.1	80.5	66.6
Year 12 certificate (per cent)	0.3	0.4	0.0	1.2	1.5
Year 10 certificate (per cent)	0.9	0.2	0.4	0.7	0.2
Household composition					
Number of adults (aged 15 and over)	1.62	2.12	2.04	2.46	2.18
Number of dependents	2.15	2.02	1.84	1.41	0.52

Notes: Based on a sample of 569 indigenous households in capital cities. Income is expressed in 1994 dollars. Household utilities include electricity, gas, water, sewerage, running water, toilets and bathroom.

Source: 1994 NATSIS unit record file; equivalence scales from Mitchell (1991).

Table A6a. Indigenous households ranked by distribution of equivalent income using Survey of Income and Housing Costs, 1994–95

	Survey of Income and Housing Costs, 1994-95 Quintile of equivalent household income (OECD scale)				
	1	2	3	4	5
Income (in 1994 dollars)					
Equivalent income[a]	$6,718	$10,444	$15,370	$23,522	$39,162
Raw household income[a]	$20,051	$30,509	$42,769	$55,255	$79,567
Housing					
Housing costs (in 1994 dollars)[a]	$2,573	$3,527	$3,793	$5,237	$6,986
Number of bedrooms per person[a]	0.84	0.91	0.92	1.14	1.34
Has all household utilities (per cent)[a]	94.5	93.8	96.2	96.9	98.7
All household utilities work (per cent)[a]	84.7	84.4	86.5	85.8	93.6
Health					
Long-term health problem (per cent)	31.1	36.8	31.4	28.5	25.1
Gone without food in last 4 weeks (per cent)[a]	7.3	4.5	3.6	0.9	1.9
Justice					
Arrested in last 5 years (per cent)	17.8	15.7	12.5	10.3	9.5
Hassled by the police (per cent)	7.8	6.8	7.2	6.2	4.1
Police brutality (per cent)	1.7	2.0	1.8	1.0	0.7
Victim of crime (per cent)[b]	20.3	20.0	22.2	20.7	18.0
Number of times arrested (if arrested at least once)	2.55	2.58	2.11	1.58	2.75
Taken from natural family (per cent)	9.4	10.1	7.3	9.3	9.6
Land					
Recognise homelands (per cent)	69.9	71.7	72.3	70.7	67.9
Allowed to visit homelands (per cent)	51.7	53.8	55.0	55.2	46.8
Number of indigenous households	1,504	900	549	324	156
Distribution	43.8	26.2	16.0	9.4	4.5

Notes: Based on a sample of 3,433 indigenous households. Income is expressed in 1994 dollars. Household utilities include electricity, gas, water, sewerage, running water, toilets and bathroom.

a. Denotes that the variable is measured at the household level.

b. The proxy for victims of crime is the proportion of households in which at least one person was either verbally or physically assaulted. All other variables represent the average experience of a person in a household in the respective quintile.

Source: 1994 NATSIS unit record file; OECD equivalence scale were used.

Table A6b. Correlates of poverty for indigenous households ranked by distribution equivalent income using Survey of Income and Housing Costs, 1994–95

	Survey of Income and Housing Costs, 1994–95 Quintile of equivalent household income (OECD scale)				
	1	2	3	4	5
Labour force status					
Employed non-CDEP (per cent)	5.0	17.6	38.5	55.6	61.1
CDEP (per cent)	6.7	8.9	9.3	7.1	3.3
Unemployed (per cent)	22.9	17.5	10.6	4.4	3.2
Not-in-labour-force (per cent)	47.6	40.4	20.1	9.5	5.8
Education (highest qualification attained)					
Degree or diploma (per cent)	1.6	2.4	3.9	6.1	9.2
Vocational qualification (per cent)	5.2	5.9	8.2	12.7	9.1
Other qualification (per cent)	3.0	3.0	5.2	4.8	5.3
No qualification (per cent)	88.9	87.8	81.4	75.1	73.6
Year 12 certificate (per cent)	0.9	0.5	1.0	0.8	2.1
Year 10 certificate (per cent)	0.4	0.3	0.3	0.5	0.6
Geography					
Capital city (per cent)	17.2	12.7	16.4	21.9	23.1
Other urban (per cent)	53.4	55.3	57.0	52.2	51.3
Rural (per cent)	13.8	17.4	13.3	15.7	16.0
Remote (per cent)	15.7	14.6	13.3	10.2	9.6
Household composition					
Number of adults (aged 15 and over)	2.25	2.57	2.73	2.40	2.24
Number of dependents	2.24	1.63	1.18	0.76	0.49

Notes: Based on a sample of 3,433 indigenous households.

Source: 1994 NATSIS unit record file; OECD equivalence scale were used.

Table A7a. Indigenous income units ranked by overall distribution of equivalent income, Survey of Income and Housing Costs, 1994–95

	Survey of Income and Housing Costs, 1994-95 Quintile of equivalent income (OECD scale)				
	1	2	3	4	5
Income (in 1994 dollars)					
Equivalent income	$5,403	$10,070	$14,924	$23,573	$40,394
Raw income unit income	$10,515	$15,737	$26,964	$36,311	$66,073
Raw household income[a]	$33,230	$38,324	$45,916	$54,001	$79,178
Housing	$30,271	$35,158	$41,996	$49,400	$73,110
Housing costs (in 1994 dollars)[a]	$2,960	$3,166	$3,920	$4,601	$6,068
Number of bedrooms per person[a]	0.65	0.76	0.75	1.00	1.12
Has all household utilities (per cent)[a]	92.9	92.7	94.0	96.0	97.4
All household utilities work (per cent)[a]	82.7	82.1	82.4	87.9	90.1
Health					
Long-term health problem (per cent)	29.4	41.5	31.6	30.8	28.2
Gone without food in last 4 weeks (per cent)[a]	8.2	8.0	4.8	3.3	2.6
Justice					
Arrested in last 5 years (per cent)	20.0	18.8	13.4	11.7	11.4
Hassled by the police (per cent)	10.0	7.9	7.0	5.5	4.0
Police brutality (per cent)	2.7	2.5	1.6	1.3	1.1
Victim of crime (per cent)[b]	14.3	12.8	13.7	14.5	15.4
Number of times arrested (if arrested at least once)	2.74	2.98	2.10	2.49	2.41
Taken from natural family (per cent)	7.1	10.4	7.5	6.2	10.3
Land					
Allowed to visit homelands (per cent)	54.1	57.0	57.5	54.7	52.4
Recognise homelands (per cent)	74.9	77.9	74.8	71.1	73.8
Number of indigenous income units	3,866	1,501	983	530	233
Distribution of income units (per cent)	54.4	21.1	13.8	7.5	3.3

Notes: Based on a sample of 7,113 indigenous income units. Income is expressed in 1994 dollars. Household utilities include electricity, gas, water, sewerage, running water, toilets and bathroom.

a. Denotes that the variable is measured at the household level.

b. The proxy for victims of crime is the proportion of households in which at least one person was either verbally or physically assaulted. All other variables represent the average experience of a person in a household in the respective quintile.

Source: 1994 NATSIS unit record file; OECD equivalence scale were used.

Table A7b Correlates of poverty for indigenous income units ranked by overall distribution equivalent income using Survey of Income and Housing Costs, 1994–95

	Survey of Income and Housing Costs, 1994–95 Quintile of equivalent income (OECD scale)				
	1	2	3	4	5
Labour force status					
Employed non-CDEP (per cent)	4.0	12.5	43.2	68.1	71.1
CDEP (per cent)	9.2	14.9	15.9	7.0	5.6
Unemployed (per cent)	27.0	17.5	7.6	2.2	1.2
Not-in-labour-force (per cent)	51.8	48.1	18.4	5.5	2.8
Education (highest qualification attained)					
Degree or Diploma (per cent)	1.1	1.8	3.6	5.9	9.5
Vocational qualification (per cent)	4.0	5.2	8.6	13.1	13.2
Other qualification (per cent)	2.4	3.0	6.0	6.6	5.7
No qualification (per cent)	91.5	89.1	80.5	72.7	69.2
Year 12 Certificate (per cent)	0.7	0.7	0.9	0.9	1.7
Year 10 Certificate (per cent)	0.3	0.2	0.4	0.8	0.6
Geography					
Capital City (per cent)	13.1	12.7	12.7	20.4	22.3
Other urban (per cent)	45.7	50.3	48.2	54.9	48.9
Rural (per cent)	17.6	14.8	18.8	15.1	15.5
Remote (per cent)	23.6	22.3	20.2	9.6	13.3
Household composition					
Number of adults (aged 15 and over)	1.31	1.27	1.55	1.52	1.63
Number of dependents	1.13	0.71	0.90	0.40	0.45

Notes: Based on a sample of 7,113 indigenous income units.

Source: 1994 NATSIS unit record file; OECD equivalence scale were used.

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